

# OIL & GAS ENFORCEMENT

## At a Glance

Inspections of oil and gas wells  
1992 ..... 2,822  
1995 ..... 3,740  
1999 ..... 2,823

Violations at oil and gas wells  
1992 ..... 1,702  
1995 ..... 532  
1999 ..... 1,316

## Indicator 10. Oil and Gas Well Compliance and Enforcement

**Background** The Kentucky Department of Mines and Minerals, Division of Oil and Gas was established in 1960 to foster conservation and exploration, protect the rights of land and mineral owners, and regulate construction/operation of oil and gas wells.

State oil and gas officials report that most environmental problems occur at older oil wells and small independently-owned wells. Pollution from oil and gas wells can be caused by oil, grease and brines associated with production. Brine, which can contain more salt than sea water, is currently impairing water quality in five of the state's 13 river basins.

**Goal** Foster conservation and exploration, protect the rights of land and mineral owners, and regulate construction/operation of oil and gas wells.

**Progress** During 1999, the Division of Oil and Gas 16 inspectors conducted more than 2,823 inspections of oil and gas operations. At least four inspections are conducted during the life of a well to ensure proper construction, operation and plugging.

During 1999, 1,316 violations were cited at oil and gas wells by the Division of Oil and Gas inspectors. Improper well closure was the leading violation, accounting for 43 percent of 1,316

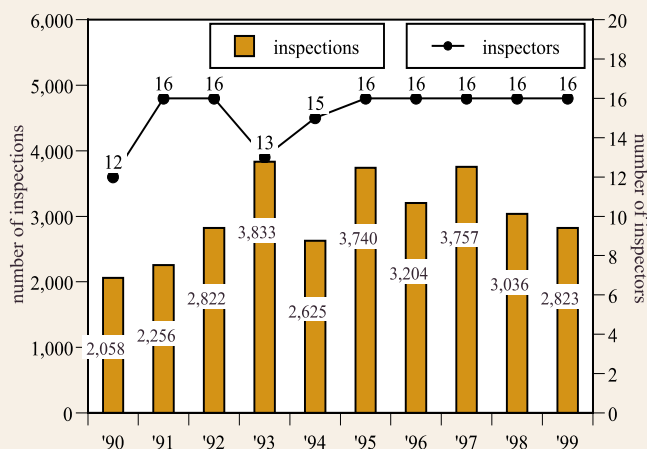
violations cited. The greatest number of the violations cited in 1999 occurred in Ohio County (127 violations), followed by Daviess County (77 violations), Clay County (57 violations), Hancock County (57 violations), McLean County (53 violations), and Adair County (46 violations).

Inspections are also conducted at oil and gas wells by Division of Water inspectors. During 1999, 3,924 inspections were conducted and 65 water quality violations were cited at oil and gas well operations. Division of Water officials report that a strong enforcement presence combined with better industry compliance and a decline in oil production have reduced violations and the level of chlorides in several waterways.

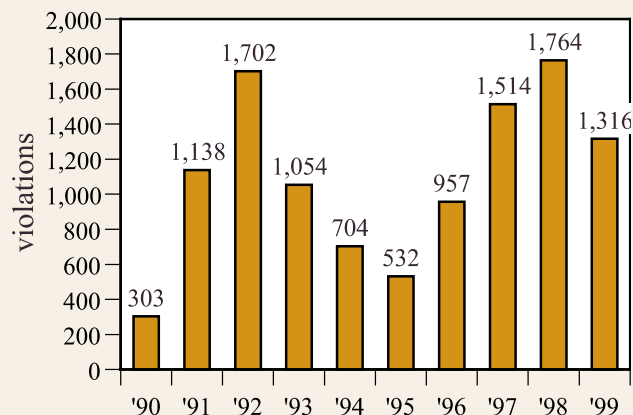
Division of Oil and Gas inspectors also responded to 42 citizen complaints in 1999 — a relatively low number considering there were 46,134 producing oil and gas wells. Most complaints concern abandoned wells, groundwater or dust.

Because the Division of Oil and Gas does not have the authority to assess fines against violators, it must rely on bond forfeitures as its primary enforcement tool. In 1999, 85 bonds were forfeited—the lowest number since 1991, when EQC began to report on oil and gas bond forfeitures. State officials attribute the recent decline in bond forfeitures to market pressures which have forced many marginal operators out of business. But the ratio of oil and gas bond releases to bond forfeitures still remains high. For example, in 1999, 100 bonds were released while 85 were forfeited. Bond amounts were increased in 1994 and now range from \$500 for an individual well to \$10,000 for multiple wells (based on well depth). However, state officials indicate that bond amounts still do not cover the complete cost of plugging and reclaiming a well site.

Measure 1. Oil and Gas Well Inspections



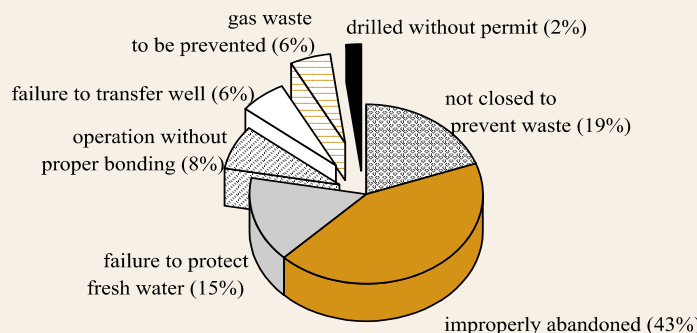
Measure 2. Oil and Gas Well Violations



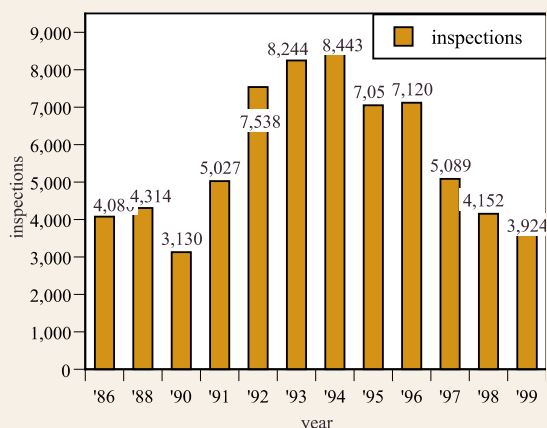
# RESOURCE EXTRACTION

## OIL & GAS ENFORCEMENT

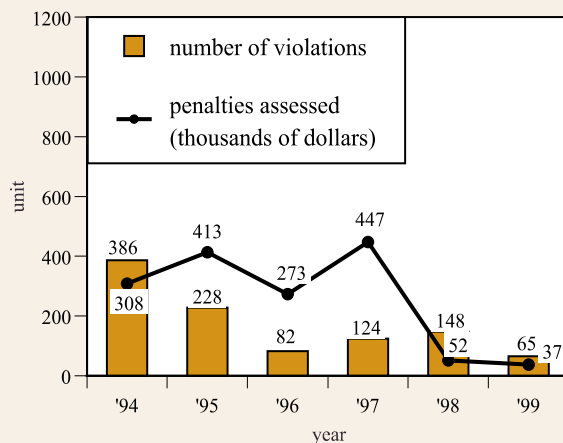
**Measure 3. Oil and Gas Violations by Type**



**Measure 4. Oil and Gas Well Water-Quality Inspections in Kentucky**



**Measure 5. Oil and Gas Well Water Quality Violations**



Another environmental threat posed by oil wells is waste created during the oil recovery process. Naturally occurring radioactive materials (NORM) can be brought to the surface and concentrated in oil pits and tank batteries. NORM was discovered in Kentucky in the Martha Oil Fields in Lawrence and Johnson counties in 1988. In 1995, the Cabinet for Health Services signed an agreement with Ashland Exploration Inc. to remediate certain NORM-impacted areas of the Martha Oil Field. To date, Ashland has excavated and is storing approximately 117,000 tons of NORM on a 3.77 acre site that straddles the border of Johnson and Lawrence Counties, with 2.89 acres in Johnson County and 0.88 acres in Lawrence County. The site is bounded by another 1,272 acres of company-owned property.

The Kentucky Natural Resources and Environmental Protection Cabinet has stated that the NORM-contaminated soil is a commercial residual solid waste. Ashland, Inc., filed a petition on May 22, 2000 to declare the NORM-contaminated soil a special waste. If NORM is declared a special waste, a notice would call for public comment on the issue. The cabinet is still formulating a draft decision.

### Measures - notes and source

**Measure 1.** Source: Ky. Division of Oil and Gas.

**Measure 2.** Source: Ky. Division of Oil and Gas.

**Measure 3.** Source: Ky. Division of Oil and Gas.

**Measure 4.** Inspections conducted and violations cited by the Division of Water Field Operations Branch. Earlier data not available. Source: Ky. Division of Water.

**Measure 5.** In 1997 \$150,000 of the \$447,000 assessed was settled by the Cabinet for \$30,000 in 1998 and this settlement is included in the 1998 number. Source: Division of Water.